



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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SECRETARY

MEMORANDUM TO: Project Engineers
Project Design Engineers

FROM: G. R. Perfetti, P. E.
State Bridge Design Engineer

DATE: September 19, 2002

SUBJECT: ALLOWABLE TEMPORARY STRESSES IN
PRESTRESSED GIRDERS

When designing prestressed concrete girders, the allowable temporary tensile stress before losses due to creep and shrinkage in areas outside the precompressed tensile zone shall be

$3\sqrt{f'_{ci}} \left(0.25\sqrt{f'_{ci}} \right)$ but not exceed 200 psi (1.4 Mpa) as per AASHTO 9.15.2.1.

This policy replaces the existing design criteria in Section 2-1 of the Design Manual that prohibits tension in the end of the girder outside the precompressed tensile zone.

GRP/JTE

cc: R. V. Keith, P. E.
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P. A. Simon, P. E.
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